**DOCKET NO.:** MSFT-0580/167506.02

**Application No.: 09/900,059** 

Office Action Dated: February 23, 2004

**REMARKS/ARGUMENTS** 

**Overview of the Office Action** 

Claims 6-16 were objected to by the Examiner for unspecified informalities (Office

Action, page 1, line 1 of section 1).

Claims 18-20 and 27-29 were objected to by the Examiner for not including "the missing

element of the claims they incorporate" (Office Action, page 2, lines 2-3 of section 1).

Claims 1-13 and 16-33 were rejected by the Examiner under 35 U.S.C. § 102(e) as being

anticipated by Blum et al. (U.S. Patent No. 5,918,233).

Claims 14 and 15 have been rejected by the Examiner under 35 U.S.C. § 103(a) as

unpatentable over Blum in view of St. John (U.S. Publication No. 2003/0023444 A1).

Status of the Claims/Amendments

Claims 18-20 and 27-29 have been amended. Claims 1-33 are pending.

Claim Objections

Claims 6-16 were objected to by the Examiner for unspecified informalities (Office

Action, page 1, line 1 of section 1); however, no specific informalities or other shortcomings

were identified by the Examiner. Therefore, Applicants respectfully request clarification as to

the basis for the Examiner's objections to these specific Claims or, alternately, Applicants

respectfully request that this objection be withdrawn.

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Claims 18-20 and 27-29 were objected to by the Examiner for not including "the missing elements of the claims they incorporate" (Office Action, page 2, lines 2-3 of section 1). Without conceding that the particular claim form used is unsupported by precedent or statute, Applicants have amended the claims to include the missing elements of the respective supporting claim identified by each such claim. In light of these amendments, Applicants respectfully submit that this objection has been traversed, and therefore Applicants respectfully request that this objection be withdrawn.

# **Explanation of Amendments to the Claims**

Claims 18-20 and 27-29 have been amended to traverse an objection made by the Examiner to the format of said claims (discussed earlier herein), as well as to effectively broaden the scope of these claims beyond the specific claimed methodology previously references in said claims. Therefore, nothing regarding these amendments should be interpreted or construed as disclaiming or limiting the scope or breadth of the original claims in any way whatsoever.

### Claims Rejected Under 35 U.S.C. § 102(e)

Claims 1-13 and 16-33 were rejected by the Examiner under 35 U.S.C. § 102(e) as being anticipated by Blum et al. (U.S. Patent No. 5,918,233). However, in response, Applicants respectfully disagree with the Examiner's conclusions and submit that the invention of Blum does not include each and every claim element present in Claims 1-13 and 16-33 of the present Application.

The invention of Blum is directed to a "system that performs analysis and comparison of audio data files based upon the content of the data files" wherein the "analysis of the audio data

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produces a set of numeric values (a feature vector) that can be used to classify and rank the similarity between individual audio files typically stored in a multimedia database or on the World Wide Web" and wherein the "analysis also facilitates the description of user-defined classes of audio files, based on an analysis of a set of audio files that are members of a userdefined class" so that the "system can find sounds within a longer sound, allowing an audio recording to be automatically segmented into a series of shorter audio segments" (Blum, Abstract, lines 1-12).

#### Regarding Claims 1-13 and 16-20:

In regard to independent Claim 1—upon which Claims 2-13, 16, and 17 depend, and which is also representative of Claims 18-20 for reasons that shall become apparent—nowhere does Blum teach "detecting the location of at least one prominent peak represented by the audio data in the frequency spectrum and determining the energy of the at least one prominent peak" as this element is defined for the present Application. More specifically, the term "energy" as used the present Application is defined as "the root mean squared (RMS) value of the frame" wherein "each frame comprise[s] a fixed number of PCM [pulse code modulation] values, and with each PCM value representing a sample in the frame" (Specification, page 22, lines 2-6). While the invention of Blum measures various aspects of the audio data, nowhere does Blum determine the energy—that is, the root mean squared (RMS) value of a frame based on the PCM values that represent samples in that frame—of the at least one prominent peak.

In order to anticipate a claimed invention, a prior art reference must teach or suggest each and every element present in the claim. However, Blum does not teach or suggest determining the energy of the at least one prominent peak as required by independent Claim 1. Therefore,

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based on the foregoing analysis, the Applicants respectfully submit that, under 35 U.S.C. § 102(e), Blum fails to teach all the claim elements necessary to anticipate the invention of independent Claim 1. Applicants therefore respectfully request that the rejection be withdrawn as to Claim 1 and that Claim 1 be allowed to issue. Moreover, given that claims that depend directly or indirectly upon an allowable claim are also allowable, Applicants further request that the rejections Claims 2-13, 16, and 17, which depend on independent Claim 1, also be withdrawn and that said dependent claims be allowed to issue as well. Lastly, amended Claims 18-20 also explicitly include this same limitation regarding "energy" and, thus, Applicants respectfully request that the rejections regarding these claims also be withdrawn so that such claims may also be allowed to issue.

# Regarding Claims 21:

In regard to independent Claim 21—upon which Claims 22-26 depend, and which is also representative of Claims 27-29 for reasons that shall become apparent—nowhere does Blum teach "assigning to each media entity of a plurality of media entities in a data set to at least one consonance class" as this element is defined for the present Application. More specifically, the term "consonance class" as used the present Application is at least partially defined by "human experts" who "undertake the classification phase to provide initial perceptually observed consonance classification data to the classification chain" and "assign each entry in the data set, to one or more musical consonance classes, corresponding to some relevant perceptual consonance properties of the data" such that the "classified data is then used to construct the initial classification chain" and "used to classify or otherwise relate songs according to their consonance properties." (Specification, page 9, lines 5-14). While the invention of Blum may

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indeed measure various aspects of consonance, nowhere does Blum use consonance classes that are at least partially defined by "human experts" in this regard.

Again, in order to anticipate a claimed invention, a prior art reference must teach or suggest each and every element present in the claim. However, Blum does not teach or suggest consonance classes—which, by definition, are at least partially defined by human experts—as required by independent Claim 1. Therefore, based on the foregoing analysis, the Applicants respectfully submit that, under 35 U.S.C. § 102(e), Blum fails to teach all the claim elements necessary to anticipate the invention of independent Claim 21. Applicants therefore respectfully request that the rejection be withdrawn as to Claim 21 and that Claim 21 be allowed to issue. Moreover, given that claims that depend directly or indirectly upon an allowable claim are also allowable, Applicants further request that the rejections Claims 22-26, which depend on independent Claim 1, also be withdrawn and that said dependent claims be allowed to issue as well. Lastly, amended Claims 27-29 also explicitly include this same limitation regarding "consonance class" and, thus, Applicants respectfully request that the rejections regarding these claims also be withdrawn so that such claims may also be allowed to issue.

### Claims Rejected Under 35 U.S.C. § 103(a)

Claims 14 and 15 have been rejected by the Examiner under 35 U.S.C. § 103(a) as unpatentable over Blum in view of St. John (U.S. Publication No. 2003/0023444 A1). However, Applicants respectfully submit that the invention of St. John, cited for allegedly teaching audio

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data being formatted according to pulse code modulated format, does not overcome the shortcomings of Blum in regard to "energy" as discussed earlier herein.

In order to establish a prima facie case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally the prior art reference (or references when combined) must teach or suggest all the claim elements. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and cannot be based on applicant's disclosure. (MPEP §§ 2142, 2143.)

Without conceding the propriety of combining Blum and St. John, and without conceding that there even exists a reasonable expectation of success to be found in these references without being based on applicant's disclosure, the Applicants respectfully submit that neither Blum nor St. John, alone or in combination, teach or suggest all of the elements of claims 14 and 15, which depend upon Claim 1, and therefore Applicants respectfully request that the Examiner withdraw the rejections of Claims 14 and 15 under 35 U.S.C. § 103 and allow these claims to issue forthwith.

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**CONCLUSION** 

Based on the reasons and rationale set forth herein, Applicants respectfully submit that

the objections and rejections have been overcome and, accordingly, Applicants request that the

objections and rejections be withdrawn and that the claims be allowed to issue. Should the

Examiner have any questions, comments, or suggestions that would expedite the prosecution of

the present case to allowance, Applicants' undersigned representative earnestly requests a

telephone conference at (206) 332-1394.

Respectfully submitted,

Date: May 17, 2004

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